

ABSTRACT OF THE DISCLOSURE

An optical glass has optical constants which are an refractive index (n_d) of 1.70-1.75 and an Abbe number (v_d) of 45.0-54.0; a glass transformation temperature (T_g) of 500-580°C. The glass has the following composition in mass percent of: SiO_2 more than 5-15%; B_2O_3 20-less than 30%; a total amount of $\text{SiO}_2 + \text{B}_2\text{O}_3$ more than 25-40%; La_2O_3 more than 21-less than 30%; Y_2O_3 more than 5-15%; Gd_2O_3 0-less than 10%; ZrO_2 1-8%; Nb_2O_5 0.1-5%; Ta_2O_5 more than 5-12%; a total amount of $\text{ZrO}_2 + \text{Nb}_2\text{O}_5 + \text{Ta}_2\text{O}_5$ 7-20%; ZnO 0-10%; CaO 0-10%; SrO 0-5%; BaO 0-10%; a total amount of $\text{ZnO} + \text{CaO} + \text{SrO} + \text{BaO}$ 5-15%; Li_2O 1-8%; Sb_2O_3 0-1%; and As_2O_3 0-1%. The glass is substantially free of Yb_2O_3 and Al_2O_3 . Devitrification is not generated when the optical glass is kept at a temperature of 920°C for two hours.